

ABSTRACT

A method of selecting a pattern to be measured includes: assigning first wafer numbers in order of a process to a wafer group constituted of a plurality of wafers including a semiconductor chip group respectively, the semiconductor chip group having a plurality of chips, each semiconductor chip having a pattern formed thereon in the process; dividing the wafer group into at least two first sub-groups in accordance with the first wafer numbers, and selecting at least two wafers having serial first wafer numbers from the first sub-groups to assign second wafer numbers to the selected wafers, respectively; dividing the semiconductor chip group into at least two second sub-groups in accordance with distances between center positions of semiconductor chips on the wafers to which the second wafer numbers have been assigned and center positions of the wafers, selecting at least three semiconductor chips from the second sub-groups, further selecting a chip including the center position of the wafer inside thereof if any, and assigning a chip number to the selected semiconductor chip; producing a lattice to divide a region in the selected semiconductor chip to which the chip number is assigned into rectangular regions the number of which exceeds the number of regions of at least two rows and two columns, on the basis of in-chip coordinates, selecting at least four lattice points from the lattice points of the lattice, selecting a pattern in the vicinity of the selected lattice points from the pattern formed on the wafer as only one candidate measurement point with respect to the lattice points, and assigning a candidate measurement point number to the candidate measurement point; and defining only some of the candidate measurement points to which the candidate measurement point numbers have been assigned as first measurement points to be actually measured based on a fractional factorial design for each of the respective semiconductor chips to which the chip numbers have been

assigned.